

Promoting Preconceptional Health:

An ESSENTIAL Birth Defects Prevention Strategy



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Workshop Objectives



- Review the components that contribute to preconceptional health
- Understand that promotion of preconceptional health is an essential birth defects prevention strategy
- Appreciate that there is an urgent need to incorporate preconceptional health into every aspect of a woman's health care during her reproductive years

Workshop Objectives

- Become familiar with recently published CDC recommendations for improving preconceptional health and health care
- Receive educational materials and strategies that can be used in practice to help clients of childbearing age achieve optimal health before conception



Challenges Involved in Birth Defects Prevention



Birth Defects and Prevention

- The causes of many birth defects remain unknown at this time
- A woman can increase her own chance of having a healthy baby by maintaining healthy behaviors before AND during pregnancy



Why Preconceptional Health Matters

Preconceptional health is critical because several risk behaviors and exposures affect fetal development and subsequent outcomes



The greatest effects occur early in pregnancy, often before women enter prenatal care or even know they are pregnant

Birth Defects

- 1 in 33 babies is born with a birth defect
- 150,000 babies in the United States are born each year with birth defects



Birth Defects in Michigan



- ~10,000 new cases per year
(80 liveborn NTD cases/year)
- ~ 161,000 children registered (1992—May 2006)
(960 NTD cases born from January 1992—December 2003)

NTD cases are diagnoses of anencephaly, encephalocele and spina bifida

Vulnerable Pregnancies in Michigan

- 43.2% of pregnancies were reported as unintended
- ~ 17.3% of women reported smoking in the last three months of pregnancy



2002 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) Report, June 2005

Vulnerable Pregnancies in Michigan

- 6.5% of women reported experiencing physical abuse in the year prior to their pregnancy
- Husband/partner was most likely named as the abuser 75.9% of the time



2002 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) Report, June 2005

Vulnerable Pregnancies in Michigan

- 4.5% of women indicated that they drank alcohol during pregnancy
- ~ 40% of PRAMS respondents reported at least one binge drinking episode three months prior to pregnancy
- ~ 50% of women with an unintended pregnancy reported binge drinking



2002 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) Report, June 2005

Vulnerable Pregnancies in Michigan

- 15.1% of women were *neither aware nor instructed* by a health care provider about the benefits of folic acid
- 53.6% of women indicated they consumed 'no multivitamin' the month prior to pregnancy



2002 Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) Report, June 2005

Among US Women Who Have Had Children



...or are currently pregnant,
only 1 in 4
report discussing pregnancy
with a health care provider
before
becoming pregnant

1995—2005 March of Dimes/Gallup Survey, September 2005

Preconception Risks

*Women of childbearing age
suffer from various chronic conditions
and are exposed to (or consume) substances
that can have an adverse effect on pregnancy outcomes.*

or or or

*Such exposures increase the risk of
pregnancy loss,
infant death,
birth defects,
or other complications for mothers and infants*

Among Women of Childbearing Age

In 2002 among adult females, aged 18—44 years

- 6% of had asthma
- 50% were overweight or obese
- 3% had cardiac disease
- 3% were hypertensive
- 9% had diabetes
- 1% had thyroid disorder



CDC. Recommendations to Improve Preconception Health and Health Care—United States. MMWR 2006;55(RR06):1-39.

Preconceptional Health/Care

- Preconceptional health is achieved by receiving comprehensive primary and preventive care from the time of puberty through menopause, in anticipation that the client may become pregnant by the next encounter with a health care provider
- The main goal of *preconceptional care* is to provide health promotion, screening, and interventions for women of reproductive age to reduce risk factors that might affect future pregnancies



Preconceptional Health/Care

- Risk factors may be biomedical, behavioral, or social
- Preconceptional care is part of a larger health-care model that results in healthier women, infants, and families



Preconceptional Health/Care



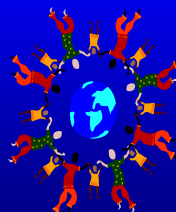
- Preconceptional care is *more* than a single visit to a health-care provider
- Preconceptional care includes the full scope of *preventive* and *primary care* services for women before a first pregnancy or between pregnancies (*commonly known as interconceptional care*)

Preconceptional Health

- Improves women's wellness
- Increases intendedness of pregnancy
- Provides education to women/partners about risks
- Decreases amenable risk factors



National Summit on Preconceptional Health, June 2005

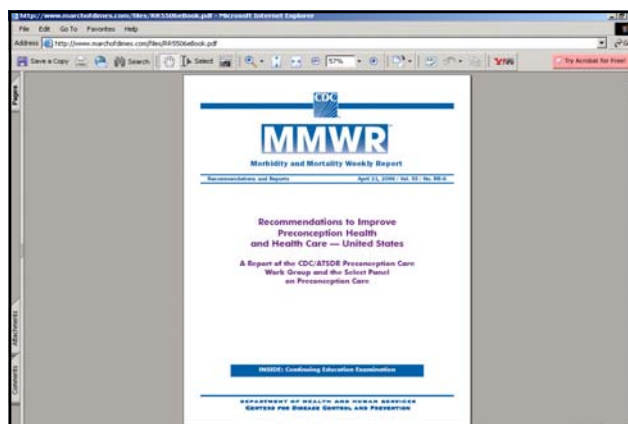


- Convened to gather information concerning promising practice models
- Summit agenda was developed based on 68 submitted abstracts
- Reflected various project models, finance approaches and research questions

Development of National Guidelines

- Issued in April 2006 by CDC
- Comprehensive recommendations aimed at improving preconceptional health and health care in the United States
- Recommendations and suggested action steps are aimed at achieving four goals

CDC. Recommendations to improve preconception health and health care—United States. MMWR 2006;55(No. RR-06):1-23.



CDC Recommendations to Improve Preconceptional Health



Goal I

Improve the knowledge, attitudes and behaviors of men and women related to preconceptional health

CDC Recommendations to Improve Preconceptional Health



Goal II

Assure that all women of childbearing age receive preconceptional care services (such as evidence-based risk screening, health promotion, and interventions) that will enable them to enter pregnancy in optimal health

CDC Recommendations to Improve Preconceptional Health



Goal III

Reduce risks indicated by a previous adverse pregnancy outcome through intervention during the interconceptional period, which can prevent or minimize health problems for a mother and her future children

CDC Recommendations to Improve Preconceptional Health



Goal IV

Reduce the disparities in adverse pregnancy outcomes

CDC Recommendations to Improve Preconceptional Health



Recommendation 1.

Encourage each woman, man, and couple to have a reproductive life plan

Recommendation 2.

Increase public awareness of the importance of preconceptional health behaviors and preconceptional care services by using information and tools appropriate across various ages, literacy levels (including health literacy levels), and cultural and linguistic contexts

CDC Recommendations to Improve Preconceptional Health



Recommendation 3.

As a part of primary care visits, provide risk assessment and educational and health-promotion counseling to all women of childbearing age to reduce reproductive risks and improve pregnancy outcomes

Recommendation 4.

Increase the proportion of women who receive interventions as follow-up to preconceptional risk screening, focusing on interventions with evidence of effectiveness and greatest potential impact

CDC Recommendations to Improve Preconceptional Health



Recommendation 5.

Use the interconceptional period to provide additional intensive interventions to women who have had a previous pregnancy that ended in an adverse outcome (infant death, fetal loss, birth defect, low birthweight or preterm birth)

Recommendation 6.

Offer, as a component of maternity care, one pre-pregnancy visit for couples and persons planning pregnancy

CDC Recommendations to Improve Preconceptional Health



Recommendation 7.

Increase public and private health insurance coverage for women with low incomes to improve access to preventive women's health and preconceptional and interconceptional care

Recommendation 8.

Integrate components of preconceptional health into existing local public health and related programs, including emphasis on interconceptional interventions for women with previous adverse pregnancy outcomes

CDC Recommendations to Improve Preconceptional Health



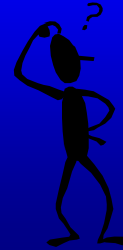
Recommendation 9.

Increase the evidence base, and promote the use of the evidence to improve preconceptional health

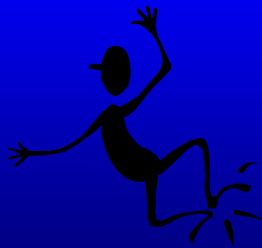
Recommendation 10.

Maximize public health surveillance and related research mechanisms to monitor preconceptional health

What Message Do I Give Clients to Reduce the Risk of Birth Defects?



Being Healthy Prior to Becoming Pregnant REALLY Matters!!



There are **MANY** behaviors that clients can practice **NOW** to **IMPROVE** their preconceptional health and help reduce the risk of birth defects for.....
SOMEDAY !!!



Preconceptional Health as an ESSENTIAL Birth Defects Prevention Strategy

- Consume a multivitamin that contains 400 micrograms (400 mcg or 0.4 mg) of folic acid DAILY
- Have a check-up from a health care provider *prior* to a first conception and between pregnancies (interconception care)
- Know your family history of birth defects, premature birth, learning disabilities, and chronic diseases—share that family history with your health care provider



Preconceptional Health as an ESSENTIAL Birth Defects Prevention Strategy



- Seek reproductive genetic counseling, if appropriate
- Manage chronic maternal illnesses such as asthma, cardiac disease, clotting disorders, depression, diabetes, hypertension, hypothyroidism, inflammatory bowel disease (IBD), lupus, obesity, phenylketonuria (PKU), renal disease, and seizure disorders

Preconceptional Health as an ESSENTIAL Birth Defects Prevention Strategy

- Make healthy lifestyle choices with regard to diet and exercise
- Ensure oral health by having regularly scheduled dental care
- Ensure that immunizations are up-to-date



Preconceptional Health as an ESSENTIAL Birth Defects Prevention Strategy



- Ensure that medications (both prescription and over-the-counter), home remedies and herbal supplements are safe at the time of conception and during early pregnancy

Preconceptional Health as an ESSENTIAL Birth Defects Prevention Strategy

- Ensure protection against domestic violence
- Consider one's emotional and financial 'readiness' for pregnancy and parenthood



Preconceptional Health as an ESSENTIAL Birth Defects Prevention Strategy



- Avoid exposure to alcohol, nicotine and recreational drugs
- Avoid exposure to infection
 - ✓ Practice good hand washing
 - ✓ Practice safe sex by using condoms if concerned about the spread of sexually transmitted diseases from your partner
 - ✓ Avoid close contact with the urine/saliva of sick toddlers

Preconceptional Health as an ESSENTIAL Birth Defects Prevention Strategy

- Avoid harmful occupational and environmental exposures
- Avoid frequent use of hot tubs and saunas, especially in early pregnancy



Preconceptional Health as an ESSENTIAL Birth Defects Prevention Strategy

- Avoid intake of shark, swordfish, king mackerel or tilefish and limit intake of tuna



- Avoid undercooked meat and exposure to used cat litter

Optimizing Preconceptional Health

- Reduces **maternal** morbidity and mortality
- Establishes a healthier 'pregnancy milieu' for both mother and baby
- Decreases the risk of birth defects
- Decreases the risk of prematurity
- Reduces **infant** morbidity and mortality



*Investing in preconceptional health
ultimately saves
precious economic resources*

An Investment in Prevention

- CSHCS expenditures for 586 Michigan beneficiaries with neural tube defects (NTD) amounted to \$3,939,397 in FY 2004
- Average cost = \$6,722/beneficiary
- Given that preconceptional folic acid use prevents up to 70% of NTDs, *potentially* 410 of the 586 cases could have been prevented, saving taxpayers an estimated \$2,756,020 in FY 2004 alone

Personal communication with staff from the Children's Special Health Care Services (CSHCS) Program—May 2006



Promoting Preconceptional Health in Clinical Practice



- Include assessment of the intent to become pregnant as a 5th vital sign after assessment of temp, pulse, respiratory rate and blood pressure
- Asking *every* woman about her reproductive intentions at *all* her healthcare visits will....
 - ✓ help to sensitize clients of the issue of unintended pregnancy
 - ✓ remind providers about the importance of recommending birth defects prevention strategies to women of childbearing age

Promoting Preconceptional Health in Clinical Practice

- Utilize a preconceptional health checklist with all eligible clients of childbearing age
- Use posters in waiting areas
- Provide preconceptional health reminders in exam rooms
- Provide a preconceptional health 'Rx' at each visit
- Provide preconceptional health reminders on mailings to clients and through voicemail message systems



Promoting Preconceptional Health in Clinical Practice



*Some
suggested
slogans*

- Every Woman, Every Time
- Don't Just Conceive—
PRECONCEIVE!
- Prenatal Care Alone is NOT Enough!

Collaborative Efforts



Many opportunities exist for state and local health agencies to enhance preconceptional health with the aim of reducing the risk of birth defects including →

- Promoting preconceptional health activities within existing public health programs such as WIC and Title X
- Offering interventions for identified risks (folic acid awareness campaign, smoking/substance cessation programs, screening for chronic or sexually transmitted diseases)
- Targeting women who are at increased risk for poor pregnancy outcomes (low income women or women with previous poor birth outcomes)

Issues to Keep in Mind

- Most of the care offered to women of childbearing age by primary care providers is a part of preconceptional care
- Payors will need to embrace the concept of comprehensive preconceptional health promotion
- Payors will also need to work out reimbursement issues for preconceptional care—and to demand it as a part of their quality improvement initiatives

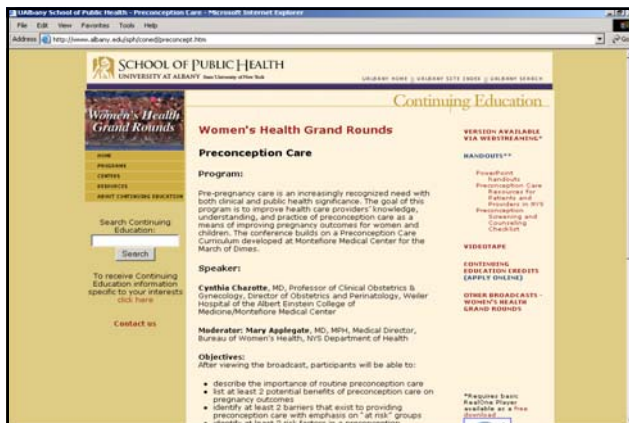


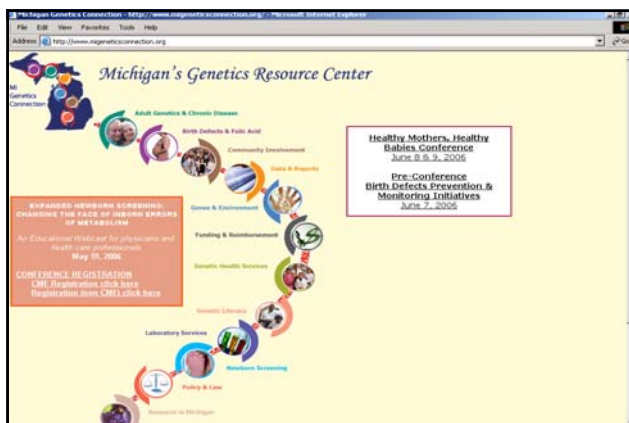
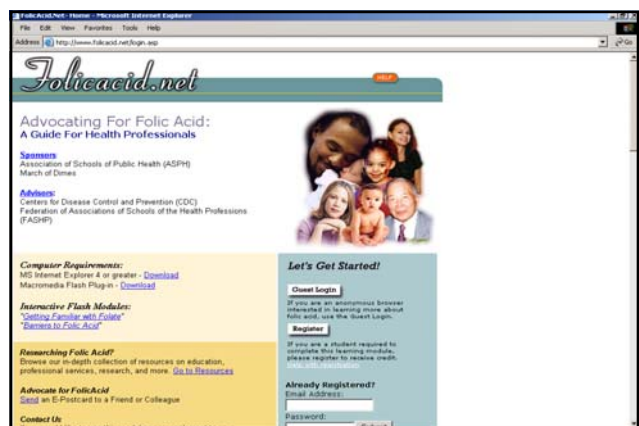
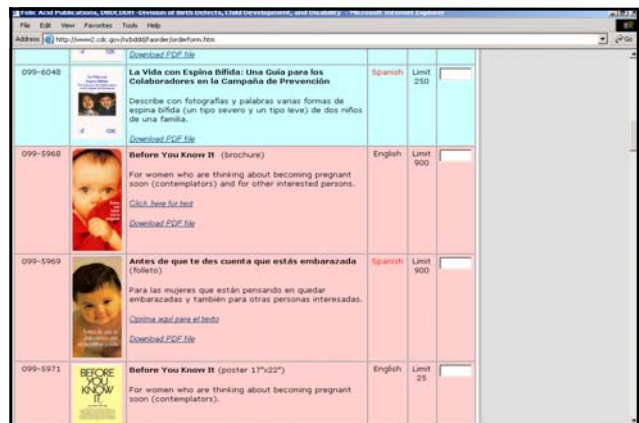
Next Steps for CDC

- Develop, and evaluate strategies for bundling health messages and services
- Train health care providers to implement preconceptional care
- Initiate research to support marketing, outreach, and education to physicians, other health care professionals, and the public about the importance of preconceptional health
- Conduct studies regarding the economic impact of widespread implementation of evidence-based preconceptional care bundles, and the effectiveness of evidence-based preconceptional care bundles in managed care organizations



Educational Resources for Professionals

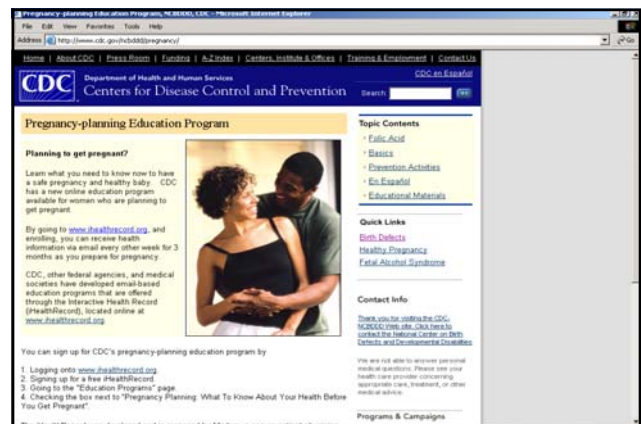




MDCH Birth Defects Program

- Birth Defects Prevention and Monitoring list-serv
- Michigan Birth Defects Registry (MBDR) annual report
- Annual Birth Defects Prevention Month (January) educational packet
- Free quantities of many educational pamphlets
 - ✓ Birth defects prevention strategies
 - ✓ Folic acid
 - ✓ Resources for infants and toddlers with special health needs
 - ✓ Genetic counseling
 - ✓ Newborn screening

Educational Resources for Clients



Acknowledgements

- Many photos throughout are used with permission from Michigan parents
- Stock photos and clipart from <http://office.microsoft.com>

Remaining Thankful for HEALTHY BABIES

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and
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